



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460**

Original signed by Dr. Larry Turner, August 1, 2003

**OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES**

Memorandum

From: Larry Turner, Ph. D.
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Field and External Affairs Division
and
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Environmental Fate and Effects Division

To: Arthur-Jean Williams, Chief
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Field and External Affairs Division

Subject: Effects Determination for Phorate for Pacific Anadromous Salmonids

We reviewed data and other information for phorate, an organophosphate insecticide named by the Washington Toxics Coalition (WTC) and included in the court order for 'effects determinations' and potential consultation with the National Marine Fisheries Service. Phorate is registered nationally for use on a corn, cotton, sorghum, potatoes, hops, sugar beets, wheat, beans, flower bulbs, and radishes, but wheat is not eligible for reregistration. The Environmental Fate and Effects Division (EFED) completed a revised environmental risk assessment dated September 14, 1999 for incorporation into a Interim Reregistration Eligibility Decision (RED) dated March, 2001. The assessment concludes that levels of concern are exceeded for endangered freshwater fish and populations of aquatic invertebrates exposed to runoff and drift from all agricultural treatment sites except potatoes. We have adapted the more general findings of the EFED assessment to develop an analysis of the potential for effects on endangered and threatened Pacific salmon and steelhead Evolutionary Significant Units (ESUs) from current uses in California and the Pacific Northwest.

Based on the environmental risk assessment and additional considerations indicated in our analysis and other attached or referenced materials, we conclude that the use of phorate may affect 19 salmon and steelhead ESUs, may affect but is not likely to adversely affect three salmon and steelhead ESUs and will have no effect on four ESUs . Our determinations are based

on the known or potential use of phorate on crops within habitats and migration corridors of each ESU, the high acute risk of phorate to endangered fish, and the potential for indirect effects due to acute and chronic risks to their aquatic invertebrate food supply.

attachments